

**APPARATUS AND METHOD FOR COMMUNICATING BETWEEN  
COMPUTER SYSTEMS USING A SLIDING SEND WINDOW FOR ORDERED  
MESSAGES IN A CLUSTERED COMPUTING ENVIRONMENT**

**ABSTRACT OF THE DISCLOSURE**

5           A clustered computer system includes multiple computer systems (or nodes)  
coupled together via one or more networks that can become members of a group to work  
on a particular task. Each node includes a cluster engine, a cluster communication  
mechanism that includes a sliding send window, and one or more service tasks that  
process messages. The sliding send window allows a node to send out multiple messages  
10 without waiting for an individual acknowledgment to each message. The sliding send  
window also allows a node that received the multiple messages to send a single  
acknowledge message for multiple received messages. By using a sliding send window  
to communicate with other computer systems in the cluster, the communication traffic in  
the cluster is greatly reduced, thereby enhancing the overall performance of the cluster.  
15 In addition, the latency between multiple messages sent concurrently is dramatically  
reduced.